

The Cancellation Diagrams of
 $z_1^{-1}c_1z_1c_1^{-1} =_F 1$
in a Free Group

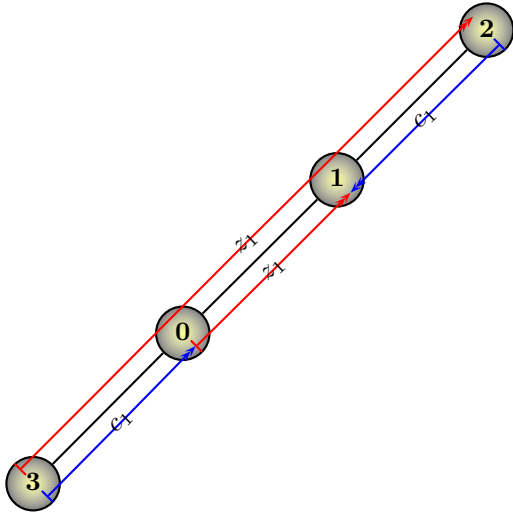
Bilal Khan ^{*} M-K Solver [†]

We report on the cancellation diagrams of $z_1^{-1}c_1z_1c_1^{-1} =_F 1$, which can be re-expressed as a quadratic system $z_1^{-1}c_1z_1c_1^{-1} =_F 1$. Below, we list the possible cancellation diagrams and then represent each as a generalized equation (GE).

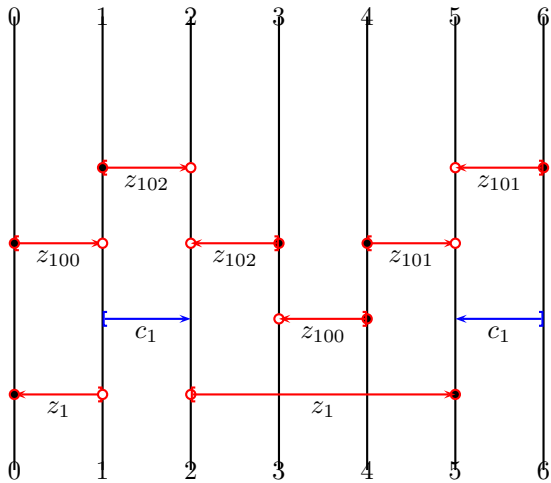
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[†]This report was generated automatically by software developed with support from the National Security Agency Grant H98230-06-1-0042.

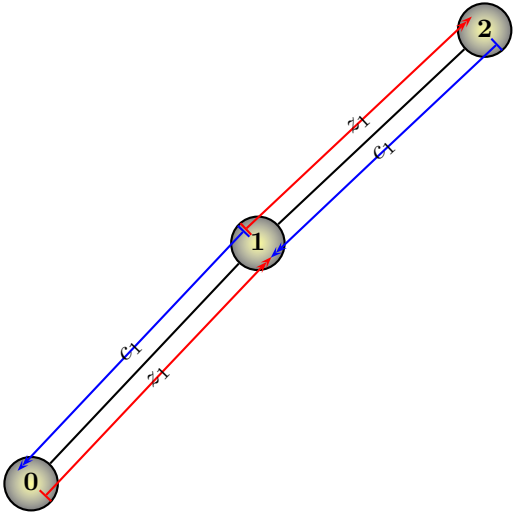
Cancellation diagram root.1.1.2:



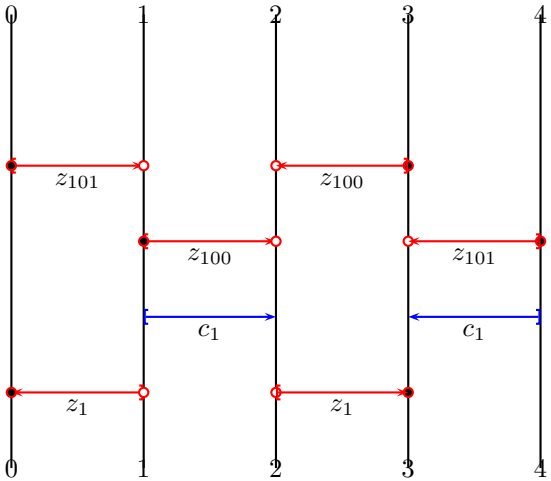
z_1^{-1}	$1 \leftarrow 0$
c_1	$2 \leftarrow 1$
z_1	$3 \leftarrow 0 \leftarrow 1 \leftarrow 2$
c_1^{-1}	$0 \leftarrow 3$



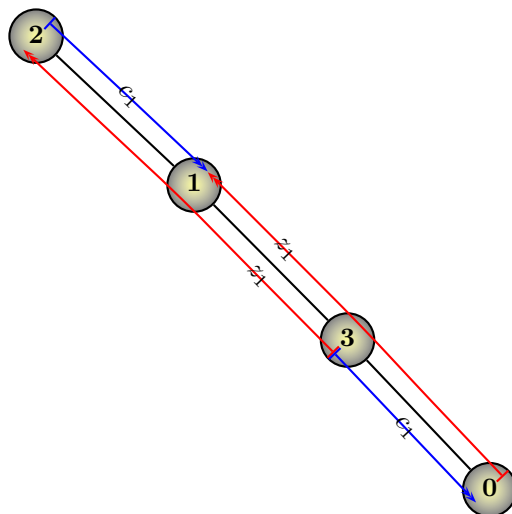
Cancellation diagram root.1.1.4:



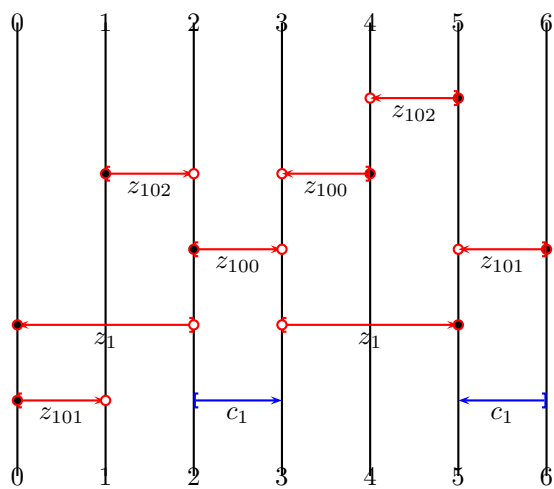
z_1^{-1}	$1 \leftarrow 0$
c_1	$2 \leftarrow 1$
z_1	$1 \leftarrow 2$
c_1^{-1}	$0 \leftarrow 1$



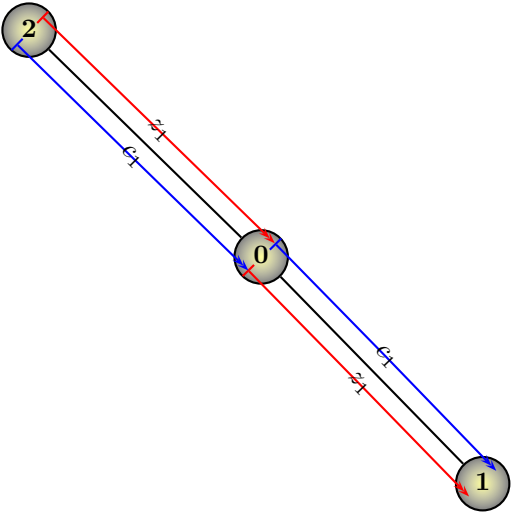
Cancellation diagram root.1.1.6:



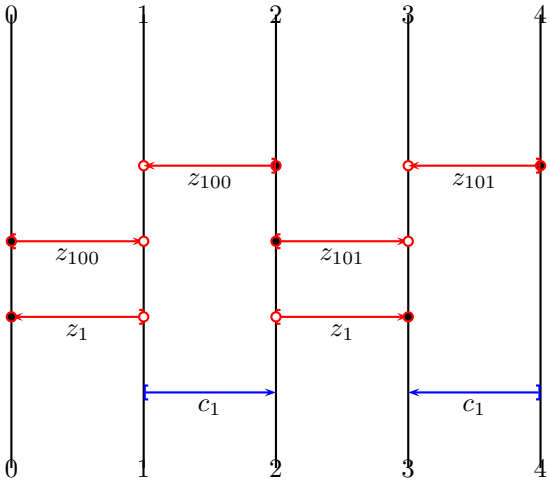
z_1^{-1}	$1 \leftarrow 3 \leftarrow 0$
c_1	$2 \leftarrow 1$
z_1	$3 \leftarrow 1 \leftarrow 2$
c_1^{-1}	$0 \leftarrow 3$



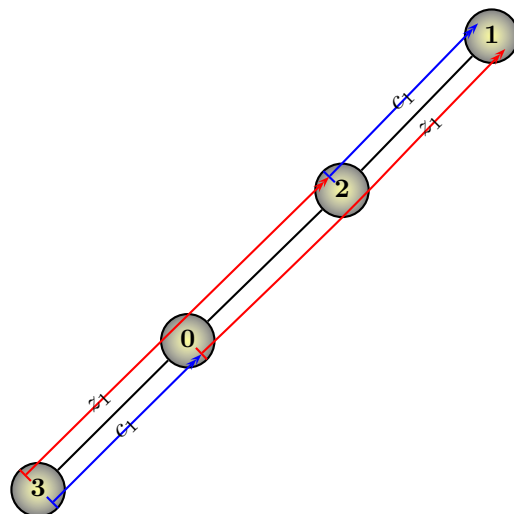
Cancellation diagram root.1.2.1:



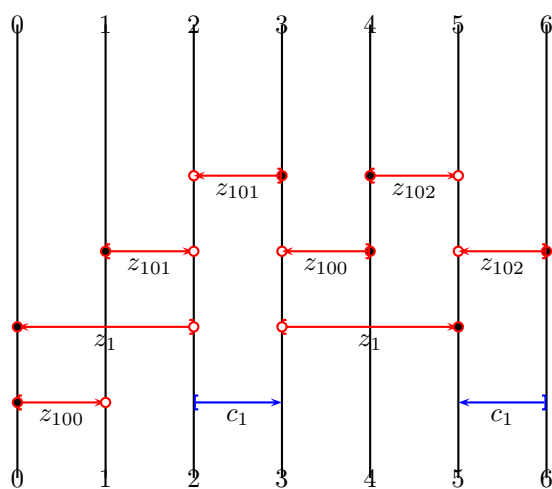
z_1^{-1}	$1 \leftarrow 0$
c_1	$0 \leftarrow 1$
z_1	$2 \leftarrow 0$
c_1^{-1}	$0 \leftarrow 2$



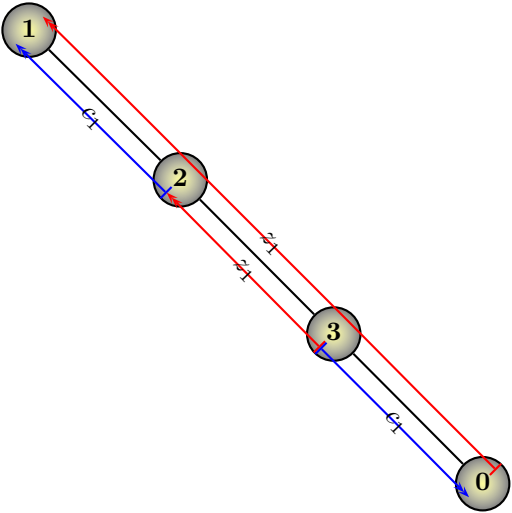
Cancellation diagram root.1.3.3:



z_1^{-1}	$1 \leftarrow 2 \leftarrow 0$
c_1	$2 \leftarrow 1$
z_1	$3 \leftarrow 0 \leftarrow 2$
c_1^{-1}	$0 \leftarrow 3$



Cancellation diagram root.1.3.4:



z_1^{-1}	$1 \leftarrow 2 \leftarrow 3 \leftarrow 0$
c_1	$2 \leftarrow 1$
z_1	$3 \leftarrow 2$
c_1^{-1}	$0 \leftarrow 3$

